



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

MAR 5 1985

MEMORANDUM FOR: Thomas M. Novak, Assistant Director for Licensing, Division  
of Licensing

FROM: L. S. Rubenstein, Assistant Director for Core and Plant  
Systems, Division of Systems Integration

SUBJECT: RESPONSE TO DIABLO CANYON ALLEGATION NO. 1545, AUXILIARY  
SYSTEMS BRANCH

Enclosed as requested by DL is the Auxiliary Systems Branch's response to Diablo Canyon allegation No. 1545. We have concluded based on our previous reviews in the area of subcompartment environments resulting from postulated high energy pipe breaks outside containment, that the concerns expressed in the allegation are not significant to safety and the licensee need take no further action in this regard.

In addition, we are also enclosing a previous response dated July 17, 1984 to what appears to be the same allegation which was prepared by the Containment Systems Branch.

L. S. Rubenstein  
Assistant Director  
for Core and Plant Systems  
Division of Systems Integration

Enclosure:  
As Stated

cc w/enclosure:  
R. Bernero  
J. P. Knight  
R. Houston  
O. Parr  
W. Butler  
G. Knighton  
H. Schierling  
J. Wermiel  
M. Ley  
J. Ridgely

Contact:  
J. Wermiel  
X29462

8503130099 XA  
3pp.

6/28

DIABLO CANYON, UNITS 1 AND 2  
RESPONSE TO ALLEGATION NO. 1545  
AUXILIARY SYSTEMS BRANCH

Task: Allegation or Concern No. 1545

Characterization

Errors in the FLUD computer model used by the licensee to establish environments in subcompartments following postulated high energy pipe breaks outside containment may result in incorrect pressure/temperature profiles for purposes of environmental qualification of safety-related equipment.

Implied Significance to Plant Design, Construction, or Operation

Incorrectly defined pressure/temperature profiles for various subcompartments would mean that new analyses would be required using a different computer model. If the newly determined environments were significantly different from those previously defined, safety-related equipment would require requalification.

Assessment of Safety Significance

The staff previously reviewed and evaluated the licensee's program (including use of the FLUD computer code) for establishing equipment qualification envelopes as part of its review of the Diablo Canyon IDVP (refer to Diablo Canyon SSER, NUREG-0675, Supplement No. 18). This evaluation included an independent calculation of the pressure/temperature profile for selected subcompartments outside containment utilizing the COBREE computer code. The staff believes the COBREE model is the current state-of-the-art for analyses for this type and has been benchmarked against actual test results to confirm its accuracy. The results of this comparison showed good correlation between the FLUD and COBREE calculated room pressures and temperatures.

Staff Position

Based on the above, the staff concludes that the licensee has utilized an acceptable methodology for determining subcompartment environments resulting from postulated pipe breaks outside containment. Therefore, the concerns expressed in this allegation do not impact our conclusion regarding the safety of the plant in this regard.

Action Required

None